

Nw 75

OS-OQSiS

data base
data management
system



university of windsor

Batch Os-Oasis Available

Version 1.0 of the Batch **OASIS** data management system is now available! This system has been running approximately one year at Windsor and Montreal and is presently being installed at two new installations, Arkansas and North Dakota.

*Further details on the system or the acquisition and support of **OASIS** may be obtained from:*

Mr. Roger Lauzon, Manager, Systems Programming, Computer Centre,
University of Windsor,
Windsor, Ontario, Canada N9B 3P4

This system includes features of major data base management systems as outlined in the "Data Base Management Comparisons" article which follows. The University of Windsor also provides maintenance service for the **OASIS** system.

Telephone at (519) 253-4232 EXT 648.

Oasis Installations

University of Windsor

Data maintenance and reporting systems

—**BEING DESIGNED**

- Student accounts receivable
- Alumni records

—**IN PRODUCTION**

- Capital equipment inventory
- Bookstore inventory

University of Arkansas & North Dakota State

Both are becoming **OS-OASIS** users with Student Records as their initial system be-

Montreal

Was a **DOS-OASIS** user for several years until they became a pre-release user of **OS-OASIS** with five data maintenance and reporting systems in production.

- Course inventory (all courses offered in the province)
- Financing formula data base
- Subsidized research data base
- Teacher salary analysis system (6 years old)
- Audio visual material inventory

Oasis Conversion Progress

OASIS is a data management system developed by Project INFO at Stanford University, operating under IBM's Disk Operating System (DOS). Before the **DOS-OASIS** system became operational, institutions began to request an OS version. Near the end of 1972, the Computer Centre at the University of Windsor decided to undertake the conversion.

Presently, the first stage of the conversion project is complete and the Batch **OASIS** system is available to other installations. The first stage includes the Master Task (the nucleus of **OS-OASIS**), the Batch Monitor (the control of batch **OASIS** application programs) and the Data Base Creation. The design, coding and testing of an On-Line Monitor to control on-line tasks will make up the second stage. The design phase is now clearly complete and the coding and testing will begin shortly.

Supporting Hardware

OS-OASIS runs on an IBM 360 or 370 computer with the following requirements:

- no less than 256K of memory.
- OS operating system (MFT or MVT).
- direct-access storage devices of the following type: 2314, 3330, or 3330-11.
- one or more tape drives: 9 track, 800 or 1600 BPI.
- IBM 3277 model II terminals (for on-line portion).

The initial development and testing of the OS version of **OASIS** was done on a 1¼ megabyte 360 model 65 under MFT (with 2314-type disks) at Windsor. Testing has also been carried out in Montreal on a 370 model 155 under MVT (with 3330 disks) and on a 370 model 168 under MVT (with 3330 and 3330-11 disks). The new installations running **OASIS** have a 370 model 155 and a 360 model 50.

Seminars

As part of an ongoing effort to keep other educational institutions involved and informed about **OASIS** developments, the University of Windsor Computer Centre held a seminar and workshop during the previous year.

In March of 1974 a one day seminar was held and attended by approximately 40 people representing institutions from both the U.S.A. and Canada. This seminar was an expository seminar outlining the **OASIS** features.

A one week intensive workshop was held in October of 1974. The workshop consisted of classroom type presentations on

the application aspects of **OASIS** as well as a presentation on generating the system. Four different institutions attended. During that week these attendees defined and tested some of their own file definitions and application programs.

During the course of the past year several papers were presented by members of the Computer Centre at different conferences such as CAUSE and CUMREC.

An annual users seminar is planned for institutions obtaining **OASIS** as their data base management system with the objective of exchanging views and techniques.

Data Base Management Comparisons

In selecting a suitable data base management system the user is faced with a formidable choice, not only do most of the major hardware vendors offer at least one data base product, but there is an even greater choice of systems from software houses as well as large users.

The first task which we as a user undertook was to analyze our requirements in order to determine the selection criteria. Following is a list of our requirements and a summary chart as to the availability denoted by **A** or unavailability denoted by **U** in various packages of these requirements.

IBM 360/370

— the software should be compatible with IBM 360/370 hardware.

Data Organization

— the ability of the file structure to handle a mix of batch and teleprocessing applications.

Multiple Entry

— provision for entry into a file via secondary keys or entry points.

Logical Relationships

— the ability to integrate data from one file to another.

Security

— the ability to restrict access and or modification of data within the data base.

Integrity

— comprises transaction logging, backup and recovery facilities.

Language Interface

— data base services must be available to procedural or high-level languages.

T. P. Monitor

— the system must have available a teleprocessing monitor and be integrated with the data base management modules.

Comparisons Of Major Data Base Management System

	IBM 360/370	Data Organization	Multiple Entry	Logical Relationships	Security	Integrity	Language Interface	T. P. Mon
Oasis	A	A	A	A	A	A	A	A
Product A	A	A	A	A	A	A	A	A
Product B	A	U	A	A	U	A	A	U
Product C	A	A	A	U	U	U	A	A
Product D	A	A	A	A	A	A	A	U
Product E	A	A	A	A	A	A	A	U

Shared Code

— the system should not require multiple copies of code to be resident in core.

Activity Statistics

— statistics on data management and processing activity.

Data Independence

— the system must minimize the effect of changes in data formats and/or additions of new data.

Query Language

— availability of a user oriented query language for use on-line.

Files

— conventional files must be available to batch programs.

Report Generator

— a report writer facility available for use in batch and/or on-line.

Utilities

— availability of maintenance type utilities.

3270 CRT

— must support IBM 3270 terminals.

Shared Code	Data Independence	Files	Utilities	Activity Statistics	Query Language	Report Generator	3270 CRT
A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A
A	A	U	U	U	U	U	U
A	A	U	U	A	U	U	A
A	A	A	U	U	A	A	U
A	A	U	U	U	U	A	U

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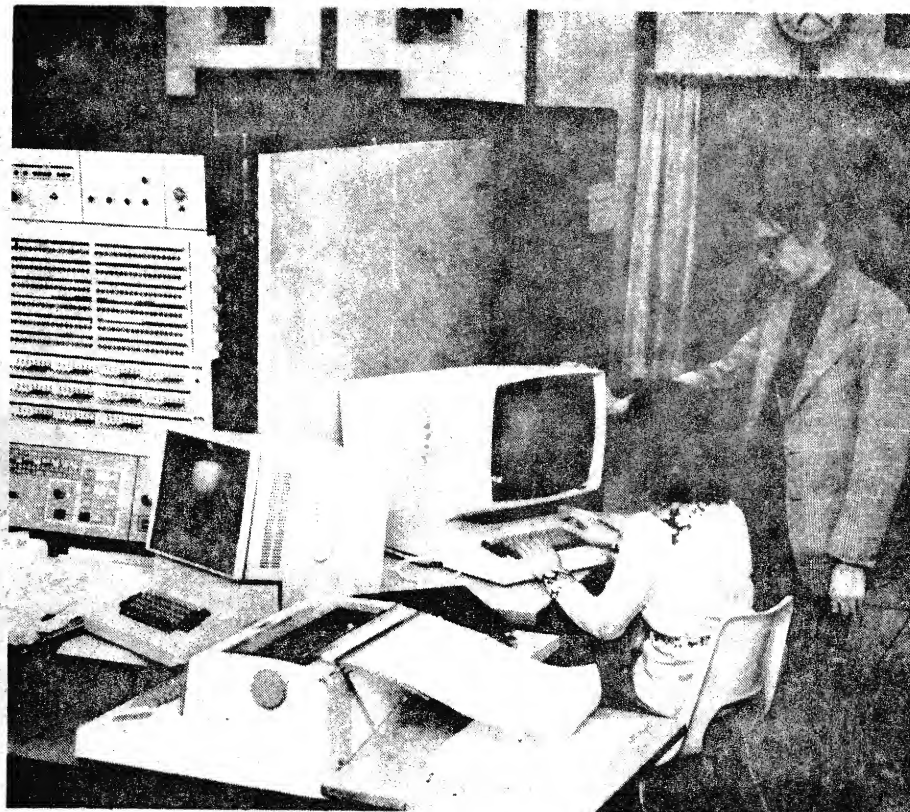
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University develops management system



A. R. Diet, data base manager at the university's computer centre watches as Mrs. L. Jin works with an on-line network program.

The University of Windsor has developed a data base data management system that it is now marketing to other institutions. Called OASIS, it was originally developed by Stanford University for small IBM systems 360, then converted by University of Windsor staff to operate on large scale IBM model 360 and 370 computers. Windsor's most recent customer is North Dakota State University.

Oasis is designed to integrate all computerized administrative systems, thereby allowing the administrator to query the files either in a batch mode or by use of a Cathode Ray Tube. The administrator, using the terminal command language, asks a question or series of questions, for example: what is the account status of student John Smith. The reply on the screen would show any outstanding accounts, such as Bookstore, tuition, parking, or residence.

Typical University files are finance, student, space, course, faculty and administration, library, bookstore. All such files, when established under Oasis, permit the

administrator, under strict password and device protection parameters, to access data from any file and to integrate the data for his or her particular information purposes.

Confidentiality is preserved by permitting access only to authorized persons for data reserved for them down to the data element level, which could be one character on any file, such as title code, Dr., Mr., Mrs., etc. Custody and confidentiality remain under control of assigned departments and individuals.

North Dakota plans to use Oasis for student records. The University of Arkansas presently is in contract discussions; they are planning to use Oasis for student records. Quebec has been using Oasis for course inventory (all courses offered in the Province); financing formula data base; subsidized Research data base; teacher salary analysis system, and audio visual material inventory.

At the University of Windsor, accounts receivable and alumni are currently being established under Oasis, to be followed by other functions in the finance department.



UNIVERSITY OF WINDSOR

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TELEPHONE: AREA CODE 519
253-4232

August 25, 1975.

T. Nelson,
Systems Consultant,
Box 3,
SCHODOYS MOUNTAIN, N.J. 07870

Dear Sir:

In response to your request, which has been forwarded to us from Datamation, for information regarding OASIS, we are pleased to enclose our brochure.

Further technical information is available in the OS-OASIS Implementation Guide for \$15.00 and the Application Programmer's Guide for \$10.00.

We believe that OASIS is one of the most advanced price/performance Data Base Data Management Systems in the field today.

For further information on OASIS, we have placed your name on our mailing list.

Yours very truly,

Leo F. Miernicke
Director,
Computer Centre.

LFM:11
Encl.